THE JOURNAL OF ENERGY AND DEVELOPMENT

INDEX

Volume XIV

Nos. 1-2
Autumn 1988 - Spring 1989

Dr. Dorothea H. El Mallakh
Managing Editor

Professor James Alm
Guest Editor

Ms. Elizabeth Isacke
Book Review Editor

Staff: N. Beran, K. Farner, S. Garrigues, D. Maruna, M. Miller, V. Phouthouong, K. Sameshima

Board of Advisory Editors*

Kenneth Boulding, *University of Colorado at Boulder*
Khodadad Farmanfarmaian, London
Robert Fernea, *University of Texas* (Austin)
Herman Franssen, *Ministry of Petroleum and Minerals* (Oman)
Bent Hansen, *University of California* (Berkeley)
Charles Issawi, *Princeton University*
Edward Johnson, *University of North Florida* (Jacksonville)
John Lymberopoulos, *University of Colorado at Boulder*
Robert Mabro, *Oxford University* (England)
Edward S. Mason, *Harvard University*
Edith Penrose, *University of London* (Emeritus)
Robert S. Pindyck, *Massachusetts Institute of Technology*
John P. Powelson, *University of Colorado at Boulder*
**Affiliations for identification only.*

Issued twice yearly under the auspices of the International Research Center for Energy and Economic Development (ICEED). Annual subscription rates (surface post included): Institution/general, $32; University and public libraries, $24; Academic (faculty/student, personal payment), $14. All communications and subscriptions should be sent to: *The Journal of Energy and Development*, Campus Box 418, University of Colorado, Boulder, CO 80309-0418 U.S.A.

Copyright 1991 by the International Research Center for Energy and Economic Development.
ISSN: 0361-4476

INDEX TO VOLUME XIV

No. 1—Autumn 1988

ARTICLES

Foreign Ownership, Free Trade, and the Canadian Energy Sector
Alan M. Rugman and Mark Warner 1

South Africa's Vulnerability to Oil Sanctions
William D. Kaempfer and Anton D. Lowenberg 19

National Origins of Saudi Arabia's Imports
John Hoftyzer and J. Wilson Mixon, Jr. 45

Oil Substitution and the Changing Structure of Energy Demand in Southeast Asia: A Case Study
B. W. Ang 55

The Impact of Oil Price Shocks on Economic Growth in Middle-Income Developing Countries
Mark E. Hanson and Dan W. York 79

Infrastructure Investment and Inflation in Saudi Arabia
Robert E. Looney 103

Biogas System Planning: A Techno-Economic Perspective
Joseph N. Lekakis and Constantinos P. Halvadakis 115

BOOK REVIEWS

José Goldemberg, Thomas B. Johansson, Amulya K.N. Reddy, and Robert H. Williams. **Energy for Development,**
reviewed by *John P. Walter* 135

José Goldemberg, Thomas B. Johansson, Amulya K.N. Reddy, and Robert H. Williams. **Energy for a Sustainable World,** reviewed by *John P. Walter* 138

Ernest J. Yanarella and William C. Green, editors. **The Unfulfilled Promise of Synthetic Fuels: Technological Failure, Policy Immobilism, or Commercial Illusion,** reviewed by *Albert J. Sobey* 141

A. J. Appleby, editor. **Fuel Cells: Trends in Research and Application,** reviewed by *Albert J. Sobey* 145

Mark Kosmo. **Money to Burn? The High Costs of Energy Subsidies,** reviewed by *Timothy J. Considine* 147

William W. Hogan and Bijan Mossavar-Rahmani. **Energy Security Revisited: Harvard International Energy Studies, Number Two;** John Gever, Robert Kaufmann, David Skole, and Charles Vorosmarty. **Beyond Oil: The Threat to Food and Fuel in the Coming Decades,** reviewed by *Phillip LeBel* 150

William A. Donnelly. **The Econometrics of Energy Demand: A Survey of Applications,** reviewed by *Carol Dahl* 155

John G. Clark. **Energy and the Federal Government: Fossil Fuel Policies, 1900-1946,** reviewed by *Wesley J. Yordon* 157

Jonathan P. Stern. **Soviet Oil and Gas Exports to the West: Commercial Transactions or Security Threat,** reviewed by *Leslie Dienes* 159

S. K. Majumber, F. J. Brenner, and E. W. Miller, editors. **Environmental Consequences of Energy Production: Problems and Prospects,** reviewed by *L. H. Hodges, III* and *I. M. Mintzer* 163

BOOKS/PUBLICATIONS RECEIVED 167

INDEX TO VOLUME XIV

No. 2—Spring 1989

ARTICLES

Energy Use in U.S. Manufacturing: The Impacts of the Energy Shocks on Sectoral Output, Industry Structure, and Energy Intensity
Richard B. Howarth 175

Should OPEC Use Dollars in Pricing Oil?
Jonathan Haughton 193

The Future Role of OPEC in the World Oil Market
Mohammed A. Al-Sahlawi 213

Foreign Ownership and Industrial Organization in the Scottish Offshore Oil-Supply Industry
C. Paul Hallwood 221

Aggregate Demand for Energy and Dynamics of Energy Demand Elasticities in Non-Oil-Developing Countries
Abbas Pourgerami and Christian R. von Hirschhausen 237

Explaining the Decline of Nuclear Power in the United States: Evidence from Plant Cancellation Decisions
Malcolm C. Harris, Sr. and Kevin J. Wynne 253

The Development of Synthetic Fuels in South Africa
Peter Hilsenrath 269

New Evidence on the Causal Relationship between United States Energy Consumption and Gross National Product
Salah Abosedra and Hamid Baghestani 285

Ramifications of U.S. Trade and National Security Laws for Petroleum Imports
Stephen J. Powell and Valerie A. Slater 293

BOOK REVIEWS

Luther J. Carter. **Nuclear Imperatives and Public Trust: Dealing with Radioactive Waste;** Lawrence Scheinman. **The International Atomic Energy Agency and World Nuclear Order,**
reviewed by *Robert A. Dudley* 319

Robert Belgrave, Charles K. Ebinger, and Hideaki Okino, editors. **Energy Security to 2000,**
reviewed by *Edith Penrose* 324

Robert Mabro, editor. **Natural Gas: An International Perspective,**
reviewed by *Robert S. Price, Jr* 326

Robert Mabro, editor. **OPEC and the World Oil Market: The Genesis of the 1986 Price Crisis,**
reviewed by *Abbas Alnasrawi* 327

Armand Pereira. **Socio-Economic and Policy Implications of Energy Price Increases,**
reviewed by *Afsaneh Mashayekhi* 329

Jean-Claude Debeir, Jean-Paul Deleage, and Daniel Hemery. **Les Servitudes de la Puissance: Une Historie de l'Energie,**
reviewed by *Jean Carrié* 330

John A. Sandwick, editor. **The Gulf Cooperation Council: Moderation and Stability in an Interdependent World,**
reviewed by *Mohammed A. Al-Sahlawi* 334

Ali A. Attiga. **The Arabs and the Oil Crisis, 1973-1986,**
reviewed by *Salah El Serafy* 336

Bruce Dickson and Harry Harding, editors. **Economic Relations in the Asian-Pacific Region,**
reviewed by *Leonard F. S. Wang* 338

Pamela S. Falk, editor. **Petroleum and Mexico's Future,**
reviewed by *Laura Randall* 341

Oscar Guzmán, Antonio Yúnez-Naude, and Miguel S. Wionczek. **Energy Efficiency and Conservation in Mexico,**
reviewed by *Laura Randall* 344

Adam Rose, Brandt Stevens, and Gress Davis. **Natural Resource Policy and Income Distribution,**
reviewed by *John P. Powelson* 346

George Gaskell and Bernard Joerges, editors. **Public Policies and Private Actions: A Multinational Study of Local Energy Conservation Schemes,**
reviewed by *Deborah J. Brown* 347

BOOKS/PUBLICATIONS RECEIVED 353

The Journal of Energy and Development is indexed in *Advanced Bibliography of Contents: Political Science and Government (ABC POL SCI); Contents of Recent Economics Journals* (Her Majesty's Stationary Office, London); *Current Contents: Social and Behavioral Sciences; Environmental Periodicals Bibliography; Journal of Economic Literature; Middle East Journal; Monthly List of Selected* Articles (United Nations, Geneva); and *Social Sciences Citation Index.*

THE JOURNAL OF ENERGY AND DEVELOPMENT

Manuscript Requirements for Contributors

1. Manuscripts should be submitted to the Editor, *The Journal of Energy and Development*, 206 Business Building, Box 418, University of Colorado, Boulder, Colorado 80309-0418. Please submit two clean copies that are typewritten, double-spaced, with reasonable margins allowed. The recommended typestyles include: prestige elite or pica elite (12 pitch), letter gothic or courier (10 pitch); we request that *no dot matric or proportional printing* be sent. Unless specifically requested by the authors, manuscripts will not be returned. If return is desired, a self-addressed, stamped envelope should be included with the manuscript.

2. Any explanatory information about the manuscript, such as research done under the auspices of a grant, agency, or institution, should be noted by an asterisk (*) after the title. Thereafter, the footnotes in the text should be denoted by consecutive numbers shown as superscript (slightly above the line). Similarly, the corresponding number should be indented and shown in superscript before the footnote itself. It is preferred, but not necessary, that footnotes be typed (double-spaced) at the end of the manuscript's text rather than at the bottom of the page on which the citation appears in the text. Footnote information and style include:

a. Article citation: Author's name; article title in quotation marks; journal title (underlined) in full; month (or season, such as fall, summer, etc.) and year of issue; page numbers when applicable. If the article appears in a government publication or proceedings of a conference, this information should be inserted in parentheses.

b. Book citation: Author's name; book title (underlined); city of publication; publisher; year of publication; page number or numbers where applicable.

c. Other footnote citations: For a chapter in an edited book give the author's name, chapter title in quotation marks, title of book (underlined), name of editor, city of publication, publisher, year of publication, page number or numbers where applicable. If book is in a series, give that information; if translated, give name of translator; note if a dissertation or thesis, giving the name of university where the work was submitted.

d. For a second reference to the same work: Repeat the author's name; op. cit. can be used if only one work by that author is cited throughout the article. If more than one article and/or book by the same author is cited, then give the author's name and title of work for each citation.

3. When submitting a manuscript, please include a brief *vita* or background note which could be utilized for an author identification footnote should the article be accepted for publication as well as an abstract of no more than 150 words.

Printing by Johnson Publishing Company, Boulder, Colorado